REMARKS

Claims 1 through 26 and 28 through 32 are now pending in the application. Claim 11 is editorially amended herein. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 2, 4-9, 11-13, 19, 22 and 23

Claims 1, 2, 4-9, 11-13, 19, 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burkarth (U.S. Pat. No. 3,703,635) in view of Evans (U.S. Pat. No. 1,436,308). This rejection is respectfully traversed.

It is initially noted Claim 11 has been editorially amended to correct the antecedent basis of the transition region in line 13 to recite in part:

> "a plurality of through apertures spaced about the reflector body, each aperture formable between the outer surface and the transition region between the first inner surface and the second inner surface".

The Examiner is respectfully requested to enter the editorial amendment to Claim 11.

Applicant respectfully disagrees with the Examiner's interpretation of Burkarth. As previously amended, Claims 1 and 11 recite in part a homogenous single piece body, including: a substantially planar transition region joining the first and second geometric curves, the transition region defining a junction point and Claim 1 further

recites the junction point preventing the light rays from directly striking the transition region.

In contrast to Applicant Burkarth teaches 4 separate reflector body portions 38, 40, 42, and 44 each defining a geometric curve, none of which are connected homogenously to any of the other reflectors. See Figures 3 and 5. Burkarth teaches "At the inner termination of the front air duct 34 there is mounted a reflector 38" (see column 3, lines 12-13), and "Reflector 38 is one of two fixed reflectors of the system illustrated" (see column 3, lines 18-20). Burkath further teaches "Reflector 40 is also maintained in a fixed position relative to the light source 26." See column 3, lines 24-25. As clearly seen in Figure 3, reflector 38 is not homogenously connected to reflector 40, and reflectors 38 and 40 do not include a substantially planar transition region joining the first and second geometric curves defining a junction point. Reflectors 38 and 40 do not include the transition region noted above and therefore cannot provide for the junction point preventing the light rays from directly striking the transition region.

As described by Burkarth reflectors 42 and 44 are adjustable and move separately from each other and therefore cannot be homogenously connected to each other or either of reflectors 38 or 40. As taught by Burkarth "To move the main reflector 42 through the rack and pinion 48, a servo motor 52 is mounted to a cross brace 54 of the housing 10" (see column 3, lines 44-46), and "The mechanism to adjust the position of the secondary reflector 44 includes a machine screw 62 threaded through a nut 64 and attached to the secondary reflector at a tab 66" (see column 3, lines 51-54). The main reflector 42 and reflector 44 are therefore mechanically connected using nut 64 at tab 66. Reflector 44 is therefore not homogenously connected to reflector 42, and

reflectors 42 and 44 further do not include a substantially planar transition region joining the first and second geometric curves defining a junction point. Further, reflectors 42 and 44 do not include the transition region noted above and therefore cannot provide for the junction point preventing the light rays from directly striking the transition region.

Evans appears to teach two embodiments, including a first embodiment shown in Figure 1 having an electric lamp shell 1 which includes "a rear portion 3, spherical in contour, an intermediate portion 4 beginning at the forward end of the spherical portion 3 and continuing therefrom in the form of a section of a parabola or parabolic curve 5". See page 2, lines 1-5. This embodiment does not teach or suggest a homogenous single piece curved body portion, including a substantially planar transition region joining the first and second geometric curves of Claims 1 and 11, or the junction point preventing the light rays from directly striking the transition region as recited in Claim 1.

The second embodiment of Evans shown in Figure 2 defines "the parabolic reflector 5' is formed at the forward portion of a metallic housing 15." See page 3, lines 43-46. Although 2 geometric curves appear to be used in creating reflector 5', the connecting location between the 2 geometric curves does not teach or suggest a substantially planar transition region joining the first and second geometric curves as recited in Claims 1 and 11. Further, because the 2 geometric curves do not include the substantially planar transition region noted above Evans does not teach or suggest the further limitation of a junction point preventing the light rays from directly striking the transition region as recited in Claim 1.

The suggested modification of Burkarth and Evans therefore cannot render Claims 1 or 11 obvious. The Examiner is respectfully requested to withdraw the 35

U.S.C. § 103(a) rejection of Claims 1 and 11. Because Claims 4-9, 11-13, 19, 22 and 23 depend from either Claim 1 or Claim 11, the suggested modification of Burkarth and Evans cannot render any of Claims 4-9, 11-13, 19, 22 and 23 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 4-9, 11-13, 19, 22 and 23.

The suggested modification of Burkarth and Evans cannot render Claim 11 obvious for the following reason. Amended Claim 11 recites a plurality of through apertures spaced about the reflector body, each aperture formable between the outer surface and the transition region between the first inner surface and the second inner surface. In addition, because as noted above neither of the references of Burkarth or Evans alone or in combination teaches or suggests the transition region defined in Claim 11, the suggested modification of Burkarth and Evans cannot provide for apertures formable between the outer surface and the transition region and therefore cannot render Claim 11 obvious for this additional reason.

Claims 3 and 21

Claims 3 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burkarth (U.S. Pat. No. 3,703,635) in view of Evans (U.S. Pat. No. 1,436,308), and in further view of Oparin et al. (U.S. Pat. No. 5,594,831). This rejection is respectfully traversed.

Concerning Claim 1, from which Claim 3 depends, in addition to the discussion above with respect to Burkarth and Evans, wherein neither reference alone or in combination teaches or suggests Applicant's transition region, Oparin et al. appear to

teach a transition region (the lower positioned arc of circle 5 as shown in Figure 1) joining 2 curved surfaces 3, however the transition region (lower arc of circle 5) is oriented facing toward the light source F_1 and light rays generated by the light source F_1 will fully strike the arc of circle 5. Oparin et al. therefore teach away from a substantially planar transition region joining the first and second geometric curves, the transition region defining a junction point, the junction point preventing the light rays from directly striking the transition region when a source of the light rays is positioned proximate an opposite end of the curved body portion as recited in Claim 1. Modifying the references of Burkarth and Evans which do not teach or suggest the transition region of Applicant, with Oparin et al. which teach away from the transition region of Claim 1, cannot render Claim 1 obvious, and therefore cannot render Claim 3 which depends from Claim 1 obvious for at least the same reasons.

Concerning Claim 11, from which Claim 21 depends, in addition to the discussion above with respect to Burkarth and Evans, wherein neither reference alone or in combination teaches or suggests Applicant's planar transition region, neither Burkarth or Evans alone or in combination teach or suggest a plurality of through apertures spaced about the reflector body, each aperture formable between the outer surface and the transition region between the first inner surface and the second inner surface. Oparin et al. appear to teach a transition region (the lower positioned arc of circle 5 as shown in Figure 1) joining 2 curved surfaces 3, however Oparin et al. do not teach or suggest any through apertures, and therefore do not teach or suggest a plurality of through apertures spaced about the reflector body. None of the references of Burkarth, Evans, or Oparin et al. alone or in combination teach or suggest a plurality of through

apertures spaced about the reflector body, each aperture formable between the outer surface and the transition region between the first inner surface and the second inner surface. Modifying the references of Burkarth and Evans which do not teach or suggest either the transition region or the plurality of apertures of Applicant, with Oparin et al. therefore cannot render Claim 11 obvious, and therefore cannot render Claim 21 which depends from Claim 11 obvious for at least the same reasons.

The suggested modification of Burkarth, Evans, and Oparin et al. therefore cannot render either of Claims 3 or 21 obvious. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 3 and 21.

Claims 10, 14-18, and 20

Claims 10, 14-18, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burkarth (U.S. Pat. No. 3,703,635), in view of Evans (U.S. Pat. No. 1,436,308), and in further view of Walsh et al. et al. (U.S. Pat. No. 3,515,930). This rejection is respectfully traversed.

In addition to the discussion above with respect to Burkarth and Evans, Walsh et al. appear to disclose an outer bulb 8 which is created similar to the parabolic reflector 5' of Evans. Although 2 geometric curves appear to be used in creating outer bulb 8, the connecting location between the 2 geometric curves does not teach or suggest a substantially planar transition region joining the first and second geometric curves as recited in Claims 1 and 11. Further, because the 2 geometric curves do not include the substantially planar transition region noted above Walsh et al. do not teach or suggest

the further limitation of a junction point preventing the light rays from directly striking the transition region as recited in Claim 1.

The suggested modification of Burkarth, Evans, and Walsh et al. therefore cannot render either of Claims 1 or 11 obvious. Because Claim 10 depends from Claim 1, and Claims 14-18, and 20 depend from Claim 11, the suggested modification of Burkarth, Evans, and Walsh et al. cannot render any of Claims 10, 14-18, or 20 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 10, 14-18, and 20.

Claims 24-26 and 28-32

Claims 24-26 and 28-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burkarth (U.S. Pat. No. 3,703,635) in view of Oparin et al. et al. (U.S. Pat. No. 5,594,831). This rejection is respectfully traversed.

For at least the same reasons noted above with respect to Claims 1 and 11, the suggested modification of Burkarth, Evans, and Oparin et al. does not teach or suggest the combined limitations of Claim 24 of joining the geometric curves by a substantially planar transition region and creating a plurality of apertures through the transition region. Without the teachings of Applicant's specification to suggest any reason or function for doing so, none of the references of Burkarth, Evans, or Oparin et al. alone or in combination teach or suggest a plurality of apertures created in a planar transition region between geometric curves. Evans and Oparin et al. do not teach any apertures in the geometric curves, and Burkarth teaches no apertures in a planar transition region joining the curved surfaces. In contrast to this, Burkarth teaches "At the inner

termination of the front air duct 34 there is mounted a reflector 38 having apertures 38a spaced around the circumference." See column 3, lines 12-14. Burkarth further teaches "The main airstream, as indicated by the arrow 164, is confined to the critical center diameter of the housing by means of the air duct 34 and the configuration of the reflector 38. A small amount of air is bled off from the main airstream through the apertures 36 of the duct 34 and the apertures 38a of the reflector 38." See column 7, lines 15-20. Burkarth therefore teaches a duct which is unrelated to the reflectors receiving most of the airflow, and apertures 38a created through one reflector, and not in a transition between curved geometric surfaces.

The suggested modification of Burkarth, Evans, and Oparin et al. therefore cannot render Claim 24 obvious. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claim 24. Because Claims 25-26 and 28-32 depend from Claim 24, the suggested modification of Burkarth, Evans, and Oparin et al. cannot render any of Claims 25-26 or 28-32 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 25-26 and 28-32.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By: _____
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